

CLAIMS

What is claimed is:

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- 1 ①. A positioning system comprising:
 - 2 a receiver configured to receive positioning signals;
 - 3 a processor configured to process the positioning signals in a real time
 - 4 manner to generate positioning data;
 - 5 user application code executed by the processor, said application code
 - 6 configured to access the positioning data;
 - 7 a firewall established between the processor and the user application
 - 8 code, said firewall configured to prevent the user application code from
 - 9 corrupting positioning data and enables the processor to process the
 - 10 positioning signals in real time without interference by the user application
 - 11 code.
 - 1 2. The positioning system as set forth in claim 1, further
 - 2 comprising an application programming interface (API), said API configured
 - 3 to access the positioning data as instructed by the user application code.
 - 1 3. The positioning system as set forth in claim 2, wherein the API
 - 2 comprises a plurality of objects.
 - 1 4. The positioning system as set forth in claim 1, wherein the
 - 2 processor executes a real time operating system (RTOS).

1 5. The positioning system as set forth in claim 1, wherein the
2 firewall comprises a virtual machine.

1 6. The positioning system as set forth in claim 1 wherein the
2 processor comprises positioning code executed by the processor and the
3 firewall comprises setting the positioning code to a higher priority than the
4 user application code.

1 (7) In a positioning system, a method for processing positioning
2 signals comprising the steps of:
3 receiving positioning signals;
4 processing the positioning signals in a real time manner to generate
5 positioning data;
6 accessing the positioning data through a firewall that prevents an
7 access from corrupting positioning data and interfering with the processing
8 of the positioning signals;
9 processing the positioning data to generate user application data.

1 8. The method as set forth in claim 7, wherein the step of
2 processing the positioning signals is performed using a real time operating
3 system (RTOS).

1 9. The method as set forth in claim 7, wherein the firewall
2 comprises a virtual machine, said step of accessing comprising the steps of:
3 issuing instructions to the virtual machine;
4 said virtual machine receiving the issued instructions and
5 performing the access in accordance with the issued instruction.

1 10. The method as set forth in claim 7, wherein the firewall
2 comprises the steps of processing the positioning signals at a higher priority
3 than the accessing and processing the positioning data.

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1 (11.) A computer readable medium containing executable
2 instructions which, when executed in a processing system, causes the system
3 to perform steps for processing positioning information, comprising:
4 receiving positioning signals;
5 processing the positioning signals in a real time manner to generate
6 positioning data;
7 accessing the positioning data through a firewall that prevents an
8 access from corrupting positioning data and interfering with the processing
9 of the positioning signals; and
10 processing the positioning data to generate user application data.

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1 12. The computer readable medium as set forth in claim 11,
2 wherein the instructions further comprise a virtual machine, said step of
3 accessing comprising the steps of:
4 issuing instructions to the virtual machine; and
5 said virtual machine receiving the issued instructions and
6 performing the access in accordance with the issued instruction.

1 13. The computer readable medium as set forth in claim 11,
2 wherein the step of accessing comprises accessing the positioning data at a
3 lower priority than processing the positioning signals.

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